The IMPACT Project

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Some Myths

- Software engineering research has had minimal impact on practice
- Software engineering research results have effected minimal increases in productivity
- Software engineering research has been a poor investment, giving little return
- Industry leads, research follows
  - (Industry cleans up; research sweeps up)

(Some myths are false, some are not)

Some Consequences for Software Engineering Research

- Negative self-image
- Low academic status
- Apologetic Attitude
- Funding difficulties

Are these fair and warranted?

Some Facts
(Some "facts" are false, some are not)

- Theory:
  - Software engineering research problems are hard, fundamental, and enduring
  - The research community has an increasingly strong grip on these problems
- Practice:
  - The software practice community has achieved orders of magnitude productivity increases
  - Research results have driven much of this

The basis for a sound and thriving discipline

More "Facts"

- Negativity persists
- Negativity hurts
- We can be our own worst enemies
- We don't know what the truth really is
- We really need to find out……..

The Impact Project

- Provide scientific scholarly answers to:
  - What are the hard and fundamental problems?
  - What impact has research really had?
  - What future impacts should be expected?
  - What future directions will software research take?
- How?
  - Sigsoft project (international)
  - NSF/EU funding
- When?
  - Over the next 18-24 months

Project Products

- **Set of reports**
  - Organized around subject areas
  - Range of sizes
    - Full (25-30 pages?): journal quality
    - Condensed (3-5 pages?): magazine style
    - Popular press (?): Scientific American?
    - Abstracts (one pager, one paragraph)
- **Briefing materials**
  - For all occasions

Project Organization

- Steering Group:
  - L. Osterweil, J. Kramer, C. Ghezzi, A. Wolf
- Subject Area-Based Author Groups
  - 12-20 Subject areas
  - 8-10 Authors per subject area
  - 2 CoLead Authors per subject area
  - Inclusive, open to broad community participation
- Panel of Distinguished Reviewers

Initial Subject Areas

- Reviews/Walkthroughs
- Design Methodologies and Tools
- Middleware
- TESTING AND ANALYSIS

Testing and Analysis Report

- Lead CoAuthors
  - Lori A. Clarke
  - David Rosenblum
- Looking for broad community participation
- Preliminary report to be presented at ICSE 2001

We're not gonna take it anymore